

concave groove flanked by thick calli at base on inner side. Staminal column c. 1.0 mm long, completely attached to the ovary; staminal corona of 5 lobes, very small, subulate, broader and attached just below the middle in between stamens, free, incurved above; anthers completely united, anther appendage subquadrate, fimbriate; pollinia 4, oval transparent, shining, attached to viscid somewhat oval corpusculum with 2 very small, thick filaments. Stigma exceeding the stamens, bilobed; style simple; ovary bicarpellate.

*Habitat*: Rare near sea shore amidst black boulders associated with *Colubrina asiatica*.

*Flowering*: September-October.

*Distribution*: INDIA: South Andamans.

*Exsiccata*: INDIA: South Andamans: Jolly Boys Island, October, 24, 1986; A. K. Goel 16604 A — Holotype (CDRI); A. K. Goel 16604 B — Isotype (PBL); A. K. Goel 16604 C, D. — Isotypes (CDRI).

## ACKNOWLEDGEMENTS

We thank Dr. U. C. Bhattacharyya, Deputy Director, Central National Herbarium, Howrah for permission of herbarium consultation and Dr. N. C. Majumdar for the latin diagnosis.

*BOTHRIOCHLOA PARAMESWARANII* — A NEW SPECIES OF  
POACEAE FROM KERALA, INDIA<sup>1</sup>

P. V. SREEKUMAR, C. P. MALATHI AND V. J. NAIR<sup>2</sup>

(With a text-figure)

*Bothriochloa parameswaranii* sp. nov.  
(Fig. 1)

*Bothriochloa kuntzeana* (Hack.) Henr. affinis, sed culmis brevioribus (usque ad 30 cm), gracilibus; foliis brevioribus, angustioribus (usque ad 3 mm latis); nodis glabris; spiculis sessilibus, brevioribus (usque ad 4 mm); foveis spicularum pedicellarum 1-4, vadosis; antheris brevioribus (usque ad 1.25 mm), differt.

Perennials. Culms 10-30 cm high, erect or geniculate; nodes glabrous. Leaves lanceolate, 2-10 × 0.2-0.3 cm, base rounded, glabrous or shortly villous, midrib prominent. Ligules ovate, acute, 1-2 mm, membranous. Racemes 2-4, digitate or subdigitate, each 2-4 cm long, purplish; joints 2-3 mm long, linear, ciliate. Sessile spikelets oblong or elliptic, 3-4 mm long, callus bearded; lower glume oblong, 3-3.5 ×

1-1.25 mm, acute or subacute, chartaceous, flat or with a shallow depression, faintly 7-9-nerved, keels pectinate towards apex, margins hyaline, ciliate; upper glume ovate-lanceolate, 3-3.5 × 1-1.5 mm, chartaceous, 3-5-nerved, villous in the upper half, margins hyaline; lower floret empty; upper floret bisexual; first lemma ovate-oblong, 2.5-3 × 1-1.25 mm, rounded at apex, delicate, hyaline, faintly 3-5-nerved; palea absent; second lemma stipitate, 1-2 mm long, awn 10-15 mm long, column 6-8 mm, chestnut-brown; palea absent; stamens 3, anthers 1-1.25 mm; ovary oblong, 0.5-0.75 mm, styles c. 1 mm long, stigmas 1-1.5 mm, feathery. Pedicelled spikelets oblong, lanceolate, 3-4 mm long; pedicels 2-3 mm long, villous; lower glume oblong-lanceolate, 3-4 × 1 mm, chartaceous, 11-15-nerved, with 1-4 shallow pits, keels shortly pectinate; upper glume and lower floret similar to those of sessile spikelet; upper floret male or empty;

<sup>1</sup> Accepted May 1987.

<sup>2</sup> Botanical Survey of India, Coimbatore-641 003.

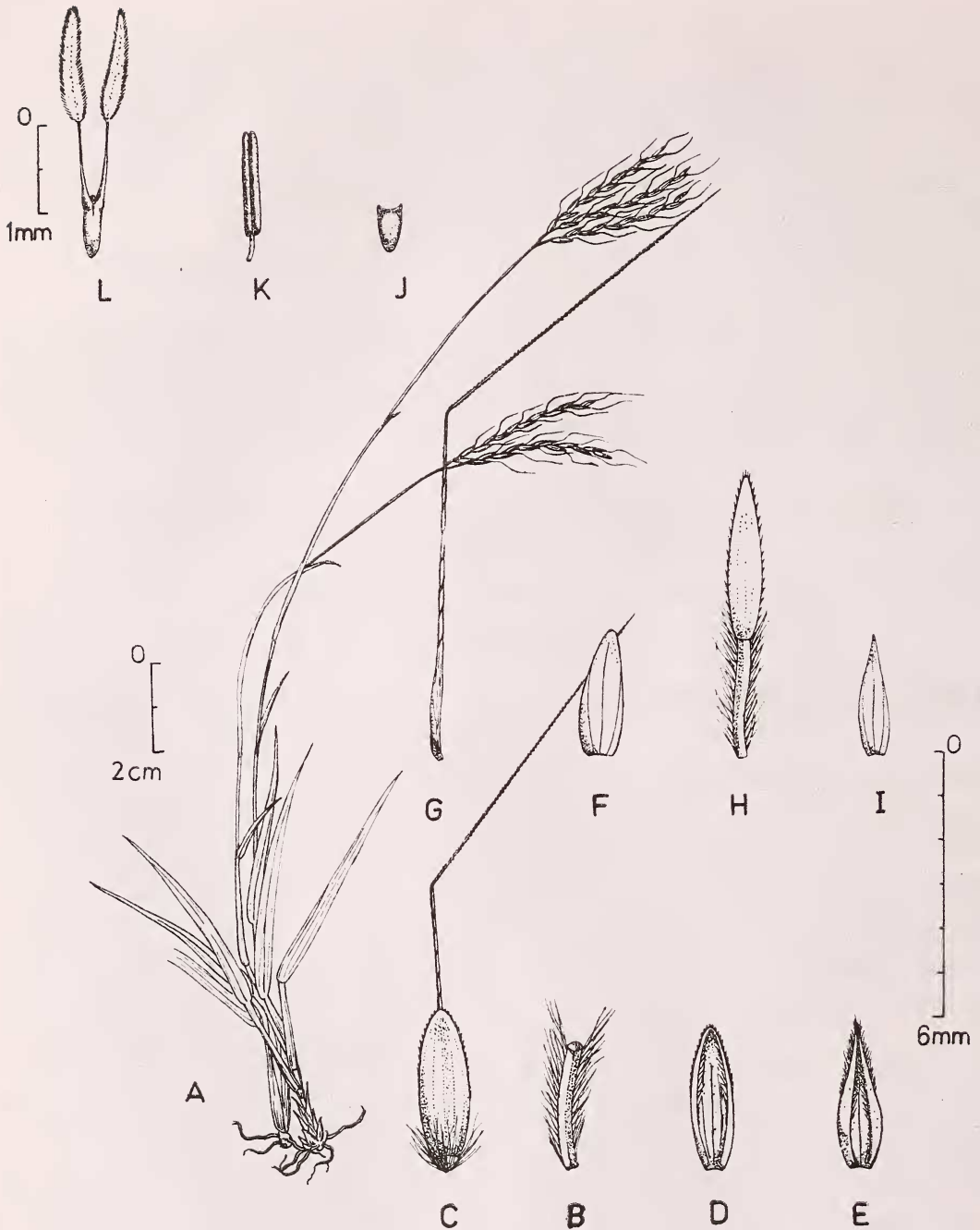


Fig. 1. A-L. *Bothriochloa parameswaranii* sp. nov.

A. Habit; B. Joint of raceme; C. Sessile spikelet; D. Lower glume of the sessile spikelet (ventral view); E. Upper glume of the sessile spikelet (ventral view); F. First lemma; G. Second lemma; H. Pedicelled spikelet; I. Second lemma of the pedicelled spikelet; J. Lodicule; K. Stamen; L. Pistil.

second lemma oblong-acute, 2-3 mm long, delicate, hyaline, faintly 3-nerved; lodicules 2, obovate, each *c.* 0.5 × 0.25 mm, concave at apex.

The specific epithet is in honour of Dr. M. Parameswaran Nayar, Director, Botanical Survey of India, for his outstanding contributions to Indian Botany.

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*Bothriochloa kuntzeana*

*Bothriochloa parameswaranii* sp. nov.

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1. Culms 40-80 cm tall, stout
2. Leaf blades 30-50 cm long, 4-6 mm wide
3. Nodes densely bearded
4. Sessile spikelets 4.5-5 mm long
5. Pit on the lower glume of the pedicelled spikelets solitary, deep
6. Anthers *c.* 2 mm long

- Culms up to 30 cm tall, slender  
 Leaf blades up to 10 cm long, 2-3 mm wide  
 Nodes entirely glabrous  
 Sessile spikelets smaller, up to 4 mm long  
 Pits on the lower glume of the pedicelled spikelets 1-4, shallow  
 Anthers 1-1.25 mm long
- 

*Holotype*: KERALA, Idukki Dt: Eravikulam National Park, ± 2100 m, 14th February 1981, P. V. Sreekumar 71858 (CAL). Isotypes in K & MH.

Rare. Grasslands at higher elevations.

This species is allied to *Bothriochloa kuntzeana* but differs markedly from it as shown in the above table.

ACKNOWLEDGEMENTS

We thank Dr. T. A. Cope of the Royal Botanic Gardens, Kew, England for his valuable opinion on the specimens and Dr. N. P. Balakrishnan, Scientist SE, Botanical Survey of India, Coimbatore-3 for kindly going through the manuscript.

DESCRIPTION OF A NEW SPECIES OF THE GENUS *ALEUROLOBUS*  
 QUAINANCE & BAKER (1914) (ALEYRODIDAE: HOMOPTERA)<sup>1</sup>

B. V. DAVID,<sup>2</sup> R. W. ALEXANDER JESUDASAN<sup>3</sup> AND GEORGE MATHEW<sup>4</sup>

(With three text-figures)

The genus *Aleurolobus* Quaintance & Baker (1914) is represented in India by twenty six species (Alexander Jesudasan 1987). An aleyrodid species collected from *Gmelina arborea* was found to be distinct from the known species of *Aleurolobus* which is described in this paper.

*Aleurolobus gmelinae* sp. nov. (Figs. 1-3)

*Pupal case*: White with waxy secretion, oval.  
 ♀ 0.825-0.875 mm long and 0.565-0.590 mm

wide, ♂ 0.680-0.710 mm long and 0.425-0.440 mm wide, found severely infesting the under-surface of leaves.

*Margin*: Irregularly dentate, about 8-10 dentations in 0.1 mm; thoracic and caudal tracheal pores and combs wanting; paired anterior and posterior marginal setae evident, measuring 17.5-30 μ and 20-60 μ long, respectively.

*Dorsal surface*: Submargin with a row of paired wax secreting tubercles placed very close to the margin; width of submargin 60 μ. Longitudinal and transverse moulting sutures

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